HP ProLiant SL160z G6 Server

HP ProLiant SL170z G6 Server

HP ProLiant SL2x170z G6 Server

HP ProLiant SL6000 Scalable System

Data sheet

Designed for extreme scale-out deployments by the rack, the new HP ProLiant SL6000 Scalable System delivers right-sized dense server solutions with power saving and cost reduction features—enabling you to grow your IT with confidence.

Driven by competitive issues and the current economic climate, scale-out computing is gaining momentum with customers striving to build economics into their data centers. If you are also looking to achieve improved efficiencies, now is a good time to consider the new HP ProLiant SL6000 Scalable System that can help you break down barriers to scale and achieve IT flexibility.

Designed around extreme scale-out, high performance computing (HPC), and power- and space-constrained data center environments, the HP ProLiant SL6000 Scalable System is a highly efficient and modular power and cooling infrastructure with a suite of pluggable server modules in a standard 19-inch rack. It includes server solutions that enhance power efficiency by sharing power supplies and fans, helping you achieve significant savings in costs.

A multi-node solution in a 2U HP ProLiant z6000 G6 Chassis, the ProLiant SL6000 Scalable System is based on industry standards and fits into standard HP and third-party racks. Its flexible hardware design provides you with streamlined features that help redefine data center efficiency and reduce acquisition and operational expenses—even while increasing server performance and energy efficiency. What's more, simplified management and monitoring of each independent server helps to reduce the cost and effort needed to manage thousands of servers.

Based on your needs, you can choose from the HP ProLiant SL160z G6, SL170z G6, and SL2x170z G6 servers. Two independent HP ProLiant SL160z G6 servers or HP ProLiant SL170z servers can go into the 2U HP ProLiant z6000 G6 Chassis. And if you opt for the HP ProLiant SL2x170z G6 server, the chassis can be used for four servers, two per 1U tray.

Key features

- High efficiency 2U power and cooling chassis
- Front serviceable 1U server trays that support up to two x 2 socket servers, with internal disk drives
- Standard 19-inch racks, with front I/O cabling
- N+1 redundant fans and optional hot plug Redundant Power Supplies (RPS)

Key benefits

High performance

If you are looking for high levels of efficiency in your data center, from the base design to the distribution of power and cooling, the HP ProLiant SL6000 Scalable System is a good choice.

- The HP SL6000 Scalable System delivers double the compute density over traditional rack servers with support for two servers in a 1U tray
- Flexible modular server configurations enable increased server density that enhances performance per watt and per square foot

Cost-effective compute power

In these turbulent economic times, IT is under intense pressure to deliver more value to their organizations, while reducing capital and operational expenses simultaneously. The HP ProLiant SL6000 Scalable System delivers concentrated compute power, even in price-conscious environments.

- The HP SL6000 Scalable System measurably reduces acquisition costs, making them significantly lower when compared to traditional rack mount servers
- Lower power consumption results in reduced operating cost per server
- No startup investment in infrastructure is required—allowing you to take advantage of lower TCO
- Fits into data centers with a standards-based infrastructure, enabling deployment without modifying hot-aisle/cold-aisle layouts and reducing deployment time and cost.
- "No frills" modular design delivers only the features you need, removing the cost of features not required for scale-out

High levels of power efficiency with shared power and thermals

The HP ProLiant SL6000 Scalable System provides a shared power and cooling infrastructure using highly efficient fans and power supplies, and modular servers designed for improved air flow and cabling. Managing power and cooling at the rack level is now simple.

You can also choose the right sized power supply for your configuration and operate higher up the efficiency curve. Right-sized ProLiant power supplies meet your exact needs and help you reclaim lost data center power. Less over-subscription means you only pay for the power you need. The HP Power Advisor can help you select the right size power supply. This is not all. HP ProLiant G6 servers come with a sea of sensors that can track thermal activity across the server and automatically adjust components such as cooling fans to increase efficiency.

- The high-efficiency multi-node chassis with shared power and cooling components including energy-efficient fans and optional hot-plug redundant PSU reduces power consumption.
- Choice of power supply (460W, 750W, or 1200W AC configurations) meets your unique power requirements—enabling you to lower power consumption without affecting performance.

HP Services

When Technology Works, Business Works

The challenge of virtually every IT organization is similar: to develop and maintain an agile, efficient server infrastructure that delivers the service levels your business needs. If you are delivering services with increasing volumes of usage, it becomes critical for your business to be able to scale data centers very quickly. HP Services for Scalable Computing (SCI) are designed to support massive scale-out data center requirements.

Benefits from SCI Services tuned for your specific needs:

- **Technical Account Manager:** Focal point for personalized escalation management and communication.
- **HP SCI Parts Exchange:** High volume, continuous parts/spares inventory and replenishment. HP sets up inventory of parts on your site so that repairs can be completed immediately by your own staff.
- **HP SCI Hardware On-site support:** Remote diagnostics and on-site hardware support to meet more demanding response needs to provide continuous level of uptime
- **HP Installation Service:** Basic Installation of HP branded products as well as HP supported products from other vendors.
- **Value-added services:** These services can address your specific data center concerns such as capacity, security, asset management, data center design, and data center relocation.

For more information, visit
http://www.hp.com/services/proliant

Technical specifications:

	HP ProLiant SL160z Server	HP ProLiant SL170z Server	HP ProLiant SL2x170z Server
Processor Chipset	2P Intel Intel® 5520 Chipset	2P Intel Intel® 5520 Chipset	2P Intel Intel® 5520 Chipset
Memory	18 DDR3 DIMM Sockets	16 DDR3 DIMM Sockets	16 DDR3 DIMM Sockets
Storage	HP Embedded SATA controller w/sw RAID Up to 2 NHP LFF HDDs	HP Embedded SATA controller w/sw RAID Up to 6 NHP LFF HDDs	HP Embedded SATA controller w/sw RAID 1 NHP LFF HDDs (2 in tray, 1 per node)
Networking	Embedded Dual Port 1GbE NICs	Embedded Dual Port 1GbE NICs	Embedded Dual Port 1GbE NICs
Optional I/O Expansion	1 x16 LP PCIe Gen 2 slot 1 x4 internal LP PCIe Gen 2	1 x16 LP PCIe Gen 2 slot	1 x16 LP PCIe Gen 2 slot
Management	Standards-based DCMI and IPMI Basic Functionality, node-level power on/off	Standards based DCMI and IPMI Basic Functionality, node-level power on/off	Standards-based DCMI and IPMI Basic Functionality, node-level power on/off
Additional Features	High efficiency(>90%) @ 50%+ load Hot Plug, N+1 PSU (optional)	High efficiency(>90%) @ 50%+ load Hot Plug, N+1 PSU (optional)	High efficiency(>90%) @ 50%+ load Hot Plug, N+1 PSU (optional)
Density	2 server nodes in 2U 1 EATX node in 1U tray	2 server nodes in 2U chassis 1 half-EATX node in 1U tray	4 server nodes in 2U 2 half-EATX nodes in 1U tray
Warranty (parts/labor/onsite)	1-year parts/1-year labor/1-year onsite	1-year parts/1-year labor/1-year onsite	1-year parts/1-year labor/1-year onsite

Servers to choose from

The HP ProLiant SL family of servers has been built for scale-out in the data center and comes in a new form factor for superior performance and power efficiency. You can choose from the following according to your needs.

Products	HP ProLiant SL160z G6 Server	HP ProLiant SL170z G6 Server	HP ProLiant SL2x170z G6 Server
Description	Increased expansion with 18 DIMM slots and up to 2 PCIe slots	Greater storage capacity with up to 6 LFF SATA or SAS hard drives	Compute density with two servers per tray (1U)
Ideal applications	HPC database tier Web memory-cache	Web search Web database	HPC compute-intensive Web front end
Product website	**www.hp.com/servers/sl160z**	**www.hp.com/servers/sl170z**	**www.hp.com/servers/sl2x170z**

- The common power slot design helps reduce power waste by allowing you to choose the power supply that best matches your specific workload.
- Unique cooling design with no midplane or I/O connectors facilitates unrestricted airflow.

Outstanding flexibility

Built on our long history of successful scale-out deployments, the HP SL6000 Scalable System gives you a high level of agility that can help you transform the economics of your data center.

- Highly flexible modular design with a variety of server trays makes it configurable for different application requirements.
- Works in existing data center infrastructure and facilitates simplified deployment.
- Front pluggable server trays enable easy serviceability.
- 10U bulk rail kit makes deployment and serviceability simple.
- Front I/O cabling provides easy access.
- 2U rail kit supports third-party racks.

Ideal environment

The HP ProLiant SL6000 Scalable System gives you the flexibility to tailor it to meet your exact requirements. Web and cloud providers, high performance computing data centers, and enterprise customers can rely on it to enable business growth and gain competitive advantage.

Typical Usage

- **Scale-out:** Web farms, Internet Service Providers (ISPs), and Application Service Providers (ASPs)
- **Web 2.0:** Social networking, shared content, blogs
- **High Performance Computing:** Oil and Gas, Financial, Entertainment, Scientific, Government, Education

HP Financial Services

HP Financial Services provides innovative financing and financial asset management programs to help you cost-effectively acquire, manage and ultimately retire your HP solutions. For more information, contact your local HP representative, or visit: **www.hp.com/go/hpfinancialservices**

For more information

To find out more about the HP ProLiant SL6000 Scalable System, contact your local HP representative, or visit: **www.hp.com/servers/sl160z**
www.hp.com/servers/sl170z
www.hp.com/servers/sl2x170z

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